Tektronix Newsroom

Tektronix Unveils Next Generation High Performance AWG Series

With Industry Leading 50 GS/s Sample Rate, New AWG 70000 Series Arbitrary Waveform Generator Powers High Speed Test Applications, Advanced Research

PR Newswire
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BEAVERTON, Ore., March 18, 2013 /PRNewswire/ -- Tektronix, Inc., a leading worldwide provider of test, measurement and monitoring instrumentation, today unveiled its next generation of arbitrary waveform generators that offer up to 50 GS/s sample rate performance. With the industry's best combination of high sample rate, long waveform memory and deep dynamic range, the new AWG70000 Series supports a wide range of demanding signal generation requirements in defense electronics, high-speed serial, optical networking and advanced research applications.

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(Logo: http://photos.prnewswire.com/prnh/20130103/SF36616LOGO-b)

As data rates and signal complexity continue to increase across all electronics and RF segments, engineers and researchers need more advanced signal generators to fully stress test designs or to perform cutting-edge research. The AWG70000 Series meets this need with its unique combination of 50 GS/s sample rate performance, 16 GS of waveform memory, and 10 bit vertical resolution. This means it produces fast, clean signals that can be routed through a receiver or other device under test for long periods of time for truly comprehensive testing.

"The AWG70000 series represents a significant advance for customers who are pushing against today's performance boundaries and need a more powerful way to generate accurate test signals at high sample rates," said Jim McGillivary, general manager of the Source Analyzer Product Line, Tektronix. "This next generation of arbitrary waveform generators further extends Tektronix's long track record of leadership and innovation in advanced signal generation technologies."

Researchers at Bell Labs, the research organization within Alcatel-Lucent, recently turned to the AWG70000 to generate signals for advanced research demonstrating 1.5 Terabits per second superchannel transmission over ultra-long-haul optical fiber distances. "The sampling rate of 50 GS/s combined with the ability to synchronize two AWGs enabled us to generate 30 GBaud signals per optical carrier, with a data rate of 233 Gb/s, more than twice the previous record," said S. Chandrasekhar, one of the lead Bell Labs researchers on this project. His colleague, Xiang Liu added, "the performance and signal purity of the AWG70000 more than met our requirements for this demanding experiment."

The AWG70000 Series gives design engineers and researchers the ability to create, generate or replicate ideal, distorted or "real-life" signals, an essential step in the design and measurement process. By offering easy generation of very complex signals with complete control over signal characteristics, the AWG70000 Series offers an industry best solution for measurement challenges in the following applications:

Defense Electronics – The AWG70000 offers bandwidth on demand by generating wide bandwidth signals at baseband, IF and RF frequencies up to 20GHz, with greater than -80 dBc dynamic range. With up to 16 GSamples of waveform memory, it can generate unique signals that are long enough to simulate real world environments, making it the most flexible wideband signal generation product available today.

Optical – Researchers developing new and faster optical technologies can use the sample rate and high

vertical resolution of the AWG70000 to very high bandwidth signals with good spectral purity. Multiple units can be synchronized together to provide a complete IQ signal generation at these high bandwidth.

High-Speed Serial – A number of next generation serial buses have intense signal generation needs. For instance, the AWG70000 offers a two-box solution for HDMI 2.0, supporting four lanes at 6 Gbps per lane. It gives designers the ability to add impairments to waveforms directly, eliminating the dependency on hardware elements to generate the necessary signals.

Advanced Research – The AWG70000 Series is ideal for a variety of research applications, giving scientists the ability to create high precision, high-speed non-standard waveforms. With the AWG70000, engineers and researchers can now generate signals that they previously could not generate.

Pricing & Availability
The AWG70000A Series is available now for orders now with production delivery starting in Q2 2013. Pricing starts at $120,000 U.S. MSRP.

Wondering what else Tektronix is up to? Check out the Tektronix Bandwidth Banter blog and stay up to date on the latest news from Tektronix on Twitter and Facebook.

About Tektronix
For more than sixty-five years, engineers have turned to Tektronix for test, measurement and monitoring solutions to solve design challenges, improve productivity and dramatically reduce time to market. Tektronix is a leading supplier of test equipment for engineers focused on electronic design, manufacturing, and advanced technology development. Headquartered in Beaverton, Oregon, Tektronix serves customers worldwide and offers award-winning service and support. Stay on the leading edge at www.tektronix.com.

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